

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 04P00113	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2005/001855	International filing date (<i>day/month/year</i>) 08.02.2005	Priority date (<i>day/month/year</i>) 26.02.2004
International Patent Classification (IPC) or national classification and IPC B41J11/04 (2006.01), B41J11/00 (2006.01)		
Applicant SEIKO INSTRUMENTS INC.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>1</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-7 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1, 3-5 _____ received by this Authority on 04.11.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets fig. 1-5 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☒ the claims, nos. 2 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1, 3-5	YES
	Claims		NO
Inventive step (IS)	Claims	4	YES
	Claims	1, 3, 5	NO
Industrial applicability (IA)	Claims	1, 3-5	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>Document 1: JP 7-237324 A (Tamura Corp.), 12 September 1995, paragraphs [0012] to [0026] (Family: none)</p> <p>Document 2: JP 3-118173 A (Sharp Corp.), 20 May 1991, page 3, upper right column, lines 10 to 12 and page 3, lower left column, lines 1 to 4 (Family: none)</p> <p>Document 3: JP 2003-162070 A (Fuji Photo Film Co., Ltd.), 06 June 2003, paragraph [0135] (Family: none)</p> <p>Document 4: JP 2000-301784 A (Kabushiki Kaisha Sato), 31 October 2000, claim 1 and paragraph [0013] (Family: none)</p> <p>Document 5: JP 8-156350 A (Seiko Epson Corp.), 18 June 1996, paragraph [0017] (Family: none)</p> <p>Claims 1 and 3</p> <p>The invention set forth in claim 1 does not involve an inventive step in the light of documents 1 to 3 cited in the international search report.</p> <p>The inventions disclosed in documents 1 and 2 belong to the same technical field in that both inventions are mechanisms for driving a thermal printer. Such being the case, it would have been obvious to a person skilled in</p>			

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

the art to apply the feature disclosed in document 2, wherein the support shafts are formed as an integral member, in the invention disclosed in document 1.

In addition, document 3 discloses a feature wherein the printer components are created from a magnesium alloy, a titanium alloy or the like by means of a die cast molding technique.

Consequently, it would have been obvious to a person skilled in the art to configure the inventions set forth in claims 1 and 3 by employing a magnesium alloy, a titanium alloy or the like and applying a die cast molding technique when forming the support shafts as an integral member in the invention disclosed in document 1.

Claim 4

The printer wherein the flange member for mounting the motor is equipped with a locking mechanism, which interlocks with the tip of the gear support shaft that has been integrated with the gear mounting member, so that it is possible to position the motor for driving the rotation of the platen roller is not disclosed in any of the documents that are cited in the international search report, and would not have been obvious to a person skilled in the art.

Claim 5

The invention set forth in claim 5 does not involve an inventive step in the light of documents 1 to 5 cited in the international search report. Documents 4 and 5 disclose thermal heads wherein a plurality of heat generating elements are arranged in a row.